UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

IN RE: BODY SCIENCE LLC PATENT LITIGATION	)	**MDL No. 1:12-md-2375-FDS**

MEMORANDUM AND ORDER
ON SUPPLEMENTAL CLAIM CONSTRUCTION

SAYLOR, J.

This is a patent dispute involving electronic systems that are used for wireless monitoring of patient body functions. Plaintiff Body Science LLC holds U.S. Patent No. 6,289,238 (the "'238 patent") and U.S. Patent No. 7,215,991 (the "'991 patent"), both entitled "wireless medical diagnosis and monitoring equipment." Body Science has brought suit for infringement of the patents against defendant Polar Electro Inc.[1] Polar has asserted multiple defenses, including claims of non-infringement and invalidity.

The litigation is now at the claim construction stage. The parties initially agreed on the construction of four terms: (1) "evaluation station" and "evaluator station," defined as a "device with an identified collection of components that detects or determines a property of data"; (2) "sensor for detecting an electric, physical, chemical or biological quantity, and converting the detected quantity into an electric signal" and "sensor . . . operable to detect an electric, physical, chemical or biological property associated with the patient, and operable to convert the detected property into an electric signal," defined as a "component that detects a property of the patient

[1] Body Science has dismissed its claims against six additional parties: Boston Scientific Corporation; Philips Electronics North America Corporation; St. Jude Medical S.C., Inc.; Pacesetter, Inc.; A&D Engineering, Inc.; and Lifewatch Services, Inc.

and can convert it into an electric signal"; (3) "control the data," "operative to control," and "operable to control," defined as "changing the transmission power of the data or changing the channel of the data (as opposed to manipulate or format the data)"; and (4) "electrode," defined as "a device that includes the identified collection of electronic components."[2]

The Court has construed five additional terms: (1) "manipulate the data," defined as "change values of the digital representation of the data to reduce errors (as opposed to control or format the data)"; (2) "formatting data," defined as "modifying the digital representation of the data (but not manipulating or controlling the data)"; (3) "change the format of the digital data," defined as "modify the digital representation of the data (as opposed to manipulate or control the data)"; (4) "attached to the patient" and "arranged on the patient," defined according to their plain and ordinary meaning; and (5) "covering comprising," defined according to its plain and ordinary meaning. *In re Body Science LLC Patent Litig.*, 2014 WL 5313861 (D. Mass. Oct. 17, 2014).

The parties now dispute the construction of two additional terms: (1) "patient" and (2) "converter." The parties also now dispute whether "evaluator station" is an element of claim 1 of the '991 patent.

I. Background

A. Factual Background

On September 11, 2001, the United States Patent and Trademark Office ("PTO") issued the '238 patent, which is a continuation of U.S. Patent No. 5,957,854 (filed Dec. 5, 1997), which, in turn, is a continuation of U.S. Patent No. 5,862,803 (filed Sep. 2, 1994). On May 8, 2007, the PTO issued the '991 patent, which is a continuation of the '238 patent, as well as a continuation

[2] The parties initially disputed the proper construction of the term "electrode," but reached an agreement prior to the first *Markman* hearing.

of U.S. Patent No. 6,577,893 (filed June 15, 2001). The '238 patent covers a "medical diagnosis and monitoring system" with "wireless electrodes" that "comprise a digital transmitting and receiving unit" and that "can be used, among other things, for detecting EEG- and EKG-signals, as well as for monitoring body/breathing movements, the temperature, perspiration, etc." of a patient. U.S. Patent No. 6,289,238, at [57] (filed Aug. 24, 1999).

Similarly, the '991 patent covers a "medical diagnosis and monitoring system having at least one sensor for detecting an electrical, physical, chemical, or biological property of a patient such as, but not limited to, EEG- and EKG-signals, respiration, oxygen saturation, temperature, perspiration, etc." U.S. Patent No. 7,215,991, at [57] (filed Mar. 24, 2003). The claimed invention has two major components: (1) an electrode or sensor that is attached to the patient and detects certain physical properties of the patient and (2) an evaluation station that communicates with that electrode and presents the detected information about the patient. Generally, the invention is intended to be used in medical settings to monitor patients while utilizing two-way wireless communication to maintain both freedom of movement of the patient and the accuracy of the reported data.

Body Science owns the '238 and '991 patents. Defendant Polar manufactures and sells allegedly infringing products.[3]

B. Procedural Background

On May 27, 2011, Body Science filed five separate actions, one each in the Northern District of California, the Northern District of Illinois, the District of Minnesota, the Eastern

[3] Polar manufactures and sells the Polar FT7, Polar FT4, Polar FT2, Polar FT1, Polar RS100, Polar CS100, Polar FT80, Polar FT60, Polar FT60 G1, Polar FT40, Polar RS300X, RS300X G1, Polar CS300, Polar CS200cad, RS800CX Pro Training Edition PREMIUM, Polar RS800CS, Polar RS400, Polar CS600X, Polar CS500, Polar CS400, Equine Healthcheck, Equine Inzone, Polar Equine RS300X G1, Equine RS800CX G3, Equine RS800CX Science, Equine CS600X Trotting, Polar WearLink + Transmitter with Bluetooth; DataLink USB, and Polar ProTrainer 5 with Polar WebLink Software; Polar Uplink Tool Software; and Polar Precision Performance.

District of New York, and this Court. On August 6, 2012, pursuant to 28 U.S.C. § 1407, the Judicial Panel on Multidistrict Litigation transferred the cases to this Court for consolidated pre-trial proceedings.[4] On July 31, 2014, the Court held a first *Markman* hearing on four disputed terms in the claims, and issued a memorandum and order construing those terms on October 17, 2014. *In re Body Science LLC Patent Litig.*, 2014 WL 5313861 (D. Mass. Oct. 17, 2014).

Following that decision, the parties informed the Court that new claim construction issues had arisen during the course of expert discovery. The Court then held a second *Markman* hearing on the three newly disputed issues.

II. Legal Framework

The construction of claim terms is a question of law. *Markman v. Westview Instruments*, 517 U.S. 370, 372 (1996) ("[T]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court.").

In *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*), the Federal Circuit clarified the proper approach to claim construction and set forth principles for determining the hierarchy and weight of the definitional sources that give a patent its meaning. The guiding principle of construction is "the meaning that the term would have to a person of ordinary skill in the art in question at the time of . . . the effective filing date of the patent application." *Id.* at 1313. Courts thus seek clarification of meaning in "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id.* at 1314 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1116

[4] On November 27, 2012, Body Science filed suit against St. Jude Medical, Inc., in the District of Minnesota, which case was likewise transferred to this Court for pre-trial proceedings. Body Science and St. Jude have since stipulated to a dismissal of that case.

(Fed. Cir. 2004)).

A. The Words of the Claim

The claim construction analysis normally begins with the claims themselves.[5] The claims of a patent "define the invention to which the patentee is entitled the right to exclude." *Phillips*, 415 F.3d at 1312 (citing *Innova*, 381 F.3d at 1115).

A court may construe a claim term to have its plain meaning when such a construction resolves a dispute between the parties. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008); *see also U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, . . . [but] is not an obligatory exercise in redundancy.").

In some instances, it is the arrangement of the disputed term in the claims that is dispositive. "This court's cases provide numerous . . . examples in which the use of a term within the claim provides a firm basis for construing the term." *Phillips*, 415 F.3d at 1314. For example, because claim terms are normally used consistently throughout the patent, the meaning of a term in one claim is likely the meaning of that same term in another. *Id.* In addition, "the presence of a dependent claim that adds a particular limitation gives rise to a presumption that

[5] In *Phillips*, the Federal Circuit discredited the practice of starting the claim construction analysis with broad definitions found in dictionaries and other extrinsic sources:

> [I]f the district court starts with the broad dictionary definition . . . and fails to fully appreciate how the specification implicitly limits that definition, the error will systematically cause the construction of the claim to be unduly expansive. The risk of systematic overbreadth is greatly reduced if the court instead focuses at the outset on how the patentee used the claim term in the claims, specification, and prosecution history, rather than starting with a broad definition and whittling it down.

415 F.3d at 1321. Of course, if no special meaning is apparent after reviewing the intrinsic evidence, claim construction might then "involve[] little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

the limitation in question is not present in the independent claim." *Id.* at 1314-15.

B. The Specification

"The claims, of course, do not stand alone." *Id.* at 1315. Rather, "they are part of a fully integrated written instrument, consisting principally of a specification that concludes with the claims." *Id.* (internal citations and quotations omitted). For that reason, the specification must always be consulted to determine a claim's intended meaning. "[T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

"In general, the scope and outer boundary of claims is set by the patentee's description of his invention." *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1338 (Fed. Cir. 2006); *see also Phillips*, 415 F.3d at 1315-17 ("[T]he interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim.") (quoting *Renishaw*, 158 F.3d at 1250). "[T]he specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess." *Phillips*, 415 F.3d at 1316. It may also reveal "an intentional disclaimer, or disavowal, of claim scope by the inventor." *Id.* Therefore, the claims are to be construed in a way that makes them consistent with, and no broader than, the invention disclosed in the specification. *On Demand*, 442 F.3d at 1340 ("[C]laims cannot be of broader scope than the invention that is set forth in the specification."); *Phillips*, 415 F.3d at 1316 ("[C]laims must be construed so as to be consistent with the specification, of which they are a part.").

Nevertheless, courts must be careful to "us[e] the specification [only] to interpret the

meaning of a claim" and not to "import[] limitations from the specification into the claim." *Id.* at 1323; *see also Gillette Co. v. Energizer Holdings, Inc.*, 405 F.3d 1367, 1375 (Fed. Cir. 2005) (internal quotations omitted). A patent's "claims, not specification embodiments, define the scope of patent protection." *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1348 (Fed. Cir. 2009); *see also Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1381 (Fed. Cir. 2009) ("[E]mbodiments appearing in the written description will not be used to limit claim language that has broader effect."). "In particular, we have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment." *Phillips*, 415 F.3d at 1323. This is "because persons of ordinary skill in the art rarely would confine their definitions of terms to the exact representations depicted in the embodiments." *Id.*

Although this distinction "can be a difficult one to apply in practice[,] . . . the line between construing terms and importing limitations can be discerned with reasonable certainty and predictability if the court's focus remains on understanding how a person of ordinary skill in the art would understand the claim terms." *Id.* Ultimately, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316 (citing *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

C. The Prosecution History

After the specification and the claims themselves, the prosecution history is the next best indicator of term meaning. The prosecution history consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent. *Id.* at 1317. "Like the specification, the prosecution history provides evidence of how the PTO

and the inventor understood the patent." *Id.* "[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Id.* (citing *Vitronics*, 90 F.3d at 1582-83).

However, "because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes." *Id.* As a result, courts generally require that "a patent applicant [] clearly and unambiguously express surrender of [a] subject matter" to disavow claim scope during prosecution. *Voda v. Cordis Corp.*, 536 F.3d 1311, 1321 (Fed. Cir. 2008) (quoting *Sorensen v. Int'l Trade Comm'n*, 427 F.3d 1375, 1378 (Fed. Cir. 2005)).

D. Extrinsic Sources

Extrinsic evidence consists of "all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317. It "can help educate the court regarding the field of the invention and can help the court determine what a person of ordinary skill in the art would understand claim terms to mean." *Id.* at 1319. However, extrinsic evidence suffers from a number of defects, including its independence from the patent, potential bias, and varying relevance. *Id.* at 1318-19. Such evidence is therefore "unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence," and courts may consider, or reject, such evidence at their discretion. *Id.* at 1319.

III. Analysis

A. "Patient"

CLAIM TERM	PLAINTIFF'S PROPOSED CONSTRUCTION	DEFENDANT'S PROPOSED CONSTRUCTION
"patient"	"an individual whose medical condition or properties are being monitored"	"one undergoing medical treatment"

The term "patient" appears throughout the '238 and '991 patents in both the preambles and the bodies of claims. Claim 1 of the '991 patent is representative and reads as follows:

> A medical system for monitoring body functions of a *patient* comprising:
>
> > at least one sensor capable of being arranged on the *patient* and operable to detect an electrical, physical, chemical, or biological property associated with the *patient* . . .

('991 patent col.27 ll.23-28) (emphasis added).

Body Science proposes that the term "patient" be construed as "an individual whose medical condition or properties are being monitored." In support, Body Science cites the patents themselves and the specification, which it reads as focusing on the monitoring of the medical condition or property, as opposed to the context in which the monitoring occurs. It also relies on extrinsic evidence in the form of expert testimony and dictionary definitions.

Polar proposes that the term "patient" be construed to mean "one undergoing medical treatment." Polar relies on what it describes as the plain and ordinary meaning of "patient," as well as the context in which the term appears in the patent title, abstract, and specification. Polar also argues that expert and dictionary evidence support its view. Finally, Polar contends that plaintiff's proposed construction would inappropriately read the term "patient" out of the patent as a limitation.

1. Words of the Claim

As a general rule, a preamble is not limiting where it "merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention." *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434-35 (Fed. Cir. 2000). A preamble may, however, inform the construction of a term that appears in the claim body, especially where, as here, the disputed term also appears in the preamble itself. *See, e.g., August Technology Corp. v. Camtek, Ltd.*, 655 F.3d 1278, 1284 (Fed. Cir. 2011).

The preamble to every independent claim in the '238 patent recites "[a] medical system." ('238 Patent, claims 1, 19, 36, 51, 67-69, 73). Similarly, the preamble to every independent claim in the '991 patent recites "[a] medical system for monitoring body functions of a *patient*. . ." ('991 Patent, claims 1, 37, 53). Thus, the words of the claims strongly support a construction of "patient" as an individual whose properties are being monitored in a "medical" context—that is, in circumstances where a physician (or a related medical professional, such as a nurse) is providing medical treatment, diagnosis, or monitoring.

2. Specifications

The Court next looks to the patents' specifications, as they are "the single best guide to the meaning" of disputed terms. *Phillips*, 415 F.3d at 1315. The specifications describe the inventions throughout as being utilized in a medical setting. Both specifications begin by describing "[a] medical diagnosis and monitoring equipment [with] wireless electrodes, which are attached to . . . the *patient*." ('238 Patent, at 1; '991 Patent, at 1) (emphasis added). They also repeatedly refer to the equipment as "used mainly in intensive-care stations in hospitals, or in the examination of *patients*." ('238 Patent, coll.1 ll.15-17; *see also, e.g., id.* at coll.6 ll.47-49) (describing long-term monitoring of infants or "*patients* in intensive care units.") (emphasis

added); *id.* at coll.7 ll. 46-47 ("Especially in hospitals, the mobility of the patient . . ."); ('991 Patent coll.15 ll.45-46) (referring to "very large systems, for example in hospitals . . ."). Again, that language strongly suggests that the "patient" contemplated is a person undergoing or receiving some type of medical attention from a physician or related medical professional.

Polar, however, points out that the specifications also describe the invention as useful for monitoring infants "at home" in order to prevent sudden infant-death syndrome. (*See, e.g.*, '238 Patent coll.1 ll.18-19; '991 Patent coll.1 ll.26-27). The patents state that the only known preventive measure of SIDS is the monitoring of a sleeping infant's cardiac and respiratory functions. ('238 Patent coll.1 ll.18-32; '991 Patent coll.1 ll.26-40). Presumably, such monitoring could be accomplished through use of the described inventions.

Because the specifications' references to an "infant" are distinct from their references to a "patient," it might be reasonable to conclude that the two are not the same. *Cf. Comark Comm'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) ("There is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.") However, the actual claims of the patents themselves use only the word "patient." Thus, exclusion of an at-home sleeping infant being monitored for SIDS from the scope of "patient" would be to exclude infants from the invention, a result that is certainly not in line with the description of the invention in the specification. Therefore, whatever the construction of "patient," it must account for and include an infant being monitored at home for the prevention of SIDS.

Body Science seems to contend that if an infant sleeping at home is covered by the meaning of the term "patient" as used in the claims, then "patient" must include other individuals whose medical properties are being monitored outside of a hospital or clinical setting or other

formal medical context. However, the discussion in the specifications of the equipment's use relative to an infant makes such an interpretation highly unlikely. The specifications first describe EKG and EEG equipment utilizing "many cables" to connect the electrodes with the evaluator units. ('238 Patent, col.1 ll.48-59). The specifications note that the presence of the cables is "especially troublesome in connection with home or hospital monitoring of infants." (*Id.* at ll.60-61). It is highly unlikely that the use of EKG or EEG equipment would occur in the absence of a relationship with a physician or other medical professional. The invention is intended as an improvement upon, or replacement for, such equipment, without the necessity for cables. An infant might be monitored at home with EKG or EEG equipment, or with the invention as an alternative, but either way it is very unlikely that the monitoring would occur without a supervising physician or medical professional of some sort. Thus, the references in the specifications to the "home . . . monitoring of infants" do not establish that the term "patient" necessarily includes individuals whose conditions are being monitored without medical supervision.

"The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Phillips*, 415 F.3d at 1316 (quoting *Renishaw*, 158 F.3d at 1250). Body Science's proposed construction of "patient" as an "individual whose medical condition or properties are being monitored" would encompass an at-home infant. However, although that construction is not directly at odds with the specifications, it is overbroad and does not naturally align with the patents' description of the inventions.

Body Science further argues that the term "patient" includes "a user of a heart rate monitor in a fitness or exercise context." (Pl. Opp. 3). Yet nowhere do the specifications

describe the equipment as used in a fitness or exercise setting, nor do they employ the word "individual," "user," "excerciser," or otherwise describe a situation in which the equipment is used outside of a medical relationship for self-monitoring of an individual's condition.

Furthermore, Body Science's proposed construction effectively replaces the word "patient" in the claims with "individual."[6] It is significant that the claim drafter used the word "patient" in most claims, as opposed to choosing "individual," "person," "human," or some other similar, generic term, as was done in claim 53 of the '991 Patent ("sensor operable to contact *a body*") and claim 74 (referring to "a second *human body*"). Although not dispositive, the drafter's choice to use the word "patient" should be given substantial effect.

Polar's construction of "patient"—"one undergoing medical treatment"—fits more closely with the invention as described, but the proposed requirement that the individual be receiving "treatment" does not align with the specifications' frequent descriptions of a patient who is simply being monitored, and is therefore too narrow.

B. Extrinsic Sources

To the extent that the parties' extrinsic evidence is helpful, it weighs in favor of a construction of "patient" as a person receiving medical care or attention from a physician or related medical professional.

Both parties have submitted expert reports in support of their respective positions. Body Science submits the report of its expert, Dr. Michael Kotzin, who opines that "[i]n the context of the patents, a patient is considered to be an individual whose medical condition or properties are being monitored." Dr. Kotzin's report does not provide any further explanation for that

[6] Due to the nature of the invention, Body Science's inclusion in its proposed construction of the words "whose medical condition or properties are being monitored" is redundant when placed in context: "A medical system for monitoring body functions of [an individual whose medical condition or properties are being monitored]."

conclusion. Polar's expert, Dr. Kenneth Fernald, opines that the proper construction of "patient" is "one under medical treatment." Dr. Fernald bases his opinion on the common meaning of the word as found in dictionaries, and its use in the patent abstract and specification. (*See Fernald Report*, Pl. Opp. Ex. F ¶ 55). Body Science contends that Dr. Fernald acknowledged that a user of heart-rate monitoring equipment in an exercise context is a patient, and cites to a portion of his report discussing the Gorman reference.[7] Polar, however, points out that in discussing claim constructions, Dr. Fernald adopted term constructions as understood from Body Science's infringement contentions without adopting those constructions as his own opinion.[8]

Regardless, neither report provides any significant evidence or analysis to support a construction of "patient" that is different from the meaning of the term as is apparent from the patent itself. Accordingly, the Court will give little weight to the reports in construing the term.

As further extrinsic evidence in support of broadening the scope of "patient," Body Science offers a dictionary definition of patient as "a person or thing who is the recipient of some action," or "a person or thing that undergoes some action."[9] That same dictionary, however, classifies Body Science's preferred definition as "rare." Moreover, it lists as its first definition of patient, "One who receives medical attention, care, or treatment." Thus, to the extent that it is relevant, the dictionary evidence before the Court clearly favors a construction of "patient" as a person who is receiving medical care or attention from a physician or other medical professional.

[7] The "Gorman reference", U.S. Patent No. 5,400,794, is a prior art reference cited by Dr. Fernald. The parties do not dispute that the Gorman reference is directed to a heart rate monitor primarily for use in fitness and exercise applications.

[8] Body Science has sought to rebut Polar's explanation by asserting that Dr. Fernald gave the same opinion in a prior case. That evidence, however, does not appear in the record.

[9] Body Science's definitions are taken from the Free Dictionary, available at http://www.thefreedictionary.com/patient.

D. Conclusion

The context and language of the patents themselves strongly support a meaning of "patient" that is consistent with a person who is receiving care or attention in a formal medical or healthcare context. They do not, however, support as narrow a reading as Polar's proposed construction, which would require the individual to be undergoing actual medical treatment, as opposed to (for example) diagnosis or monitoring.

Thus, neither plaintiff's nor defendants' proposals precisely capture the concept of a patient as expressed in the patents. The Court therefore will adopt a hybrid of the parties' proposed constructions. In the patents at issue, the term "patient" shall mean "individual whose medical condition or properties are being monitored in the course of receiving care or attention from or at the direction of a physician or other medical professional."

C. "Converting"

The term "converting" appears throughout both patents in connection with the claimed sensor and converter. For example, claim 36 of the '238 patent, which is typical, recites:

> at least one sensor for detecting an electric, physical, chemical or biological quantity, and *converting* the detected quantity into an electric signal . . .;
>
> at least one converter for *converting* the electric signal generated by said sensor into a digital value . . .

'238 patent col.31 ll.61-67 (emphasis added). The '991 patent also refers to a sensor that is "operable to convert" and a converter that is "operable to convert." The parties appear to agree that the terms "converting" and "operable to convert" are equivalent.

Body Science proposes that the term "converting" should be given its plain and ordinary meaning. Polar's position on the issue is somewhat confusing. Originally, Polar proposed to

construe the term in accordance with its plain and ordinary meaning, but then changed its position in its reply brief. Polar now proposes that the term be given the following constructions:

(1) for the sensor: changing the property to an electric signal representing the property;

(2) for the converter: changing the electric signal into a digital value representing the electric signal.

In its opening brief and oral argument, Polar appears to contend that whatever the meaning of "converting," the term should be construed so as not to encompass any subsequent processing of the signal being converted. This contention, however, seems to be directed not at determining the scope of the term "converting," but to the hypothetical of whether or not a component or feature of Polar's products would fall within the meaning of that term. Absent any firm context for Polar's argument, it is unnecessary for the Court to decide the question, and, in any event, it would likely be inappropriate to do so at the claim construction stage. *See, e.g.*, *Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1349 (Fed. Cir. 2001) (deciding that disputed issue was the proper application of a claim term to an accused process rather the scope of the term).

Leaving aside the "processing" issue, Polar's proposed constructions essentially substitutes the word "changing" for the word "converting," replacing an easily understood word with a near-synonym. By introducing a new term—"representing"—Polar's constructions have the potential to add as much confusion as they may reduce.

Furthermore, while it is undoubtedly the role of the court to construe the claims of a patent, it need not adopt a construction that is different from the words of the patent itself. In this instance, the words of the patent, as chosen by its drafter, can be readily comprehended by a layperson, and their adoption would resolve the parties' dispute. *See O2 Micro,* 521 F.3d at 1361

(holding that a court need not construe a claim if it is understandable to a layperson and adopting the plain and ordinary meaning would resolve the dispute). Accordingly, the Court will construe the terms "converting" and "operable to convert" to have their plain and ordinary meanings.

C. "Evaluator Station"

The parties have previously agreed that "evaluator station" is defined as a "device with an identified collection of components that detects or determines a property of data." The current dispute revolves not around the meaning of the term, but whether an evaluator station is an element of claim 1 of the '991 patent. Body Science contends that because the meaning of the term is not disputed, it would be inappropriate for the Court to resolve the dispute at the claim construction stage. However, claim construction is not limited to merely determining the meaning of claim terms, but instead encompasses any dispute over the scope of a claim. *See* Manzo, Claim Construction in the Federal Circuit § 0:3 (2012 ed.) ("[T]he fundamental purpose of claim construction is to determine the objective scope of a patent claim."). And because a claim's scope is dependent on its elements, it is proper to determine those elements here.

1. Words of the Claim

Claim 1 of the '991 patent recites as follows:

A medical system for monitoring body functions of a patient comprising:

> at least one sensor capable of being arranged on the patient and operable to detect an electrical, physical, chemical, or biological property associated with the patient, and operable to convert the detected property into an electric signal;
>
> at least one converter coupled to the sensor, the converter operable to convert the electric signal generated by the sensor into digital data;
>
> at least one transmitter coupled to the converter, the transmitter operable to wirelessly transmit the digital data to *an evaluator station located remotely from the patient*; and
>
> at least one receiver operable to receive information through wireless

> communication, *the information including formatting data transmitted by the evaluator station*, the formatting data operable to change a format for transmission of the digital data from the transmitter to the evaluator station.

'991 patent, claim 1 (emphasis added).

Polar contends that "evaluator station" is an element of claim 1, arguing that its inclusion in claim 1 is an example of "inferential claiming."[10] Body Science disputes this characterization, and instead contends that claim 1 is directed to "a system arranged on the patient," not including an evaluator station. (Pl. Opp. 7). Body Science argues that because claim 1 is an apparatus claim, its elements are readily identified by the word "comprising," followed by a line indentation, followed by a new sub-paragraph beginning with the phrase "at least one" preceding the new element. Body Science points to the use of a similar technique in claim 37 as an example of the drafter's intentions with respect to claim 1.[11] However, inferential claiming also

[10] "Inferential claiming" refers to the practice of introducing a new element of a claim "inferentially" by including it in a clause describing another element. *See Metrologic Instruments, Inc. v. PSC Inc.*, 2003 WL 22077652, at *37 (D.N.J. Aug. 26, 2003) (citing R. Faber, Landis on Mechanics of Patent Claim Drafting, at § 16, p. III-5 (4th ed. 1998)). The present dispute is likely an example of why inferential claiming is discouraged. *See, e.g.*, Rules of Practice in Patent Cases, 37 C.F.R. § 1.75(i) ("Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation.").

[11] Claim 37 of the '991 patent recites:

A medical system for monitoring body functions of a patient comprising:

> an evaluator station located remotely from the patient and operable for wireless data communication;
>
> a sensor capable of being arranged on the patient and operable to detect an electrical, physical, chemical, or biological property associated with the patient, and operable to convert the detected property into an electric signal;
>
> a converter coupled to the sensor, the converter operable to convert the electric signal generated by the sensor into digital data; and
>
> a transmitter coupled to the converter, the transmitter operable to wirelessly transmit the digital data to the evaluator station;
>
> a receiver operable to receive information from the evaluator station through wireless communication;

appears to be used in claim 32 of the '991 patent, which recites "The medical system of claim 1 wherein the evaluator station is operable to send a signal to an alarm unit . . ." '991 Patent, claim 32. Thus, the apparent use of inferential claiming in claim 32 weakens Body Science's argument that the claim drafter used only the line-indentation method described above to identify structural elements.

2. Reference to "Evaluator Station" in Dependent Claims

Differences among claims can also be a guide to construing the scope of a claim. *See Phillips*, 415 F.3d at 1314-15. The term "evaluator station" appears in claims 17, 32, and 33 of the '991 patent, all of which are dependent claims of claim 1.[12] Claim 17, which is typical, recites: "A medical system according to claim 1 wherein the evaluator station is operable to perform forward error correction." '991 Patent, claim 17. All three dependent claims use the definite article "the," indicating that they are referring to the evaluator station introduced in claim 1, instead of introducing a new evaluator station. The use of a definite article in those claims is in direct contrast to claim 19, a dependent claim that limits claim 1 by adding "a" second receiver. Claim 20—a dependent claim of claim 19—then returns to the use of "the" in referring to the second receiver introduced in claim 19. Thus, this pattern of use of indefinite and definite articles in claim 1 and its dependent claims supports a conclusion that "evaluator station" is in fact an element of claim 1.

3. Specification

"Claims 'must be read in view of the specification, of which they are a part.'" *Phillips*,

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wherein the evaluator station is operable to change the format of the digital data transmitted from the transmitter to the evaluator station.

[12] A claim in dependent form "refer[s] back to and further limit[s] another claim or claims in the same application." 37 C.F.R. § 175(c).

415 F.3d at 1315 (quoting *Markman*, 52 F.3d at 979). The '991 patent's specification supports a finding that claim 1 includes an evaluator station as an element. For example, in describing Figure 1, the specification states, "FIG. 1 shows the basic schematic structure of the device according to the invention. The device contains as components an evaluator station . . ." '991 Patent, col.18 ll.19-21. Further, although the term "evaluator station" is used throughout the specification, nowhere is it referred to as an optional or additional component of the invention.

4. Applicability of the Validity Maxim

Where a claim remains ambiguous after applying the available tools of claim construction, "claims should be construed to preserve their validity." *Phillips*, 415 F.3d at 1327. Although that maxim generally refers to construing claim terms so as to preserve the validity of the claim under construction (here, claim 1), the principles underlying it are similarly applicable to the present case. Here, if an "evaluator station" were not an element of claim 1, then dependent claims referring to "the evaluator station" would likely be invalid. This is because in order for a dependent claim to be valid, it must add a further limitation to the independent (or parent) claim. *See* 35 U.S.C. § 112(d) ("[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.").

As noted, dependent claims 17, 32, and 33 merely refer to the evaluator station described in claim 1 as opposed to introducing an evaluator station as a new element. Claim 17, for example, places a further limitation on claim 1 in that "*the* evaluator station is operable to perform forward error correction." (emphasis added). If "the" evaluator station referenced was not already an element of claim 1, then claim 17's requirement that it be "operable to perform forward error correction" would purport to place a limitation on a structure extraneous to claim 1, but without actually adding that structure to the claim. Put another way, because claim 17

specifically references "the" evaluator station from claim 1—as opposed to adding a new evaluator station as a component— claim 17 places a "further" limitation on claim 1 only if "the" evaluator station" is already an element of claim 1. Thus, if an evaluator station were not already an element of claim 1, then claim 17 would be void for a failure to further limit the independent claim it incorporates. *See* 37 C.F.R. § 175(c).

5. Conclusion

Admittedly, claim 1 is, at best, ambiguous. If the patentee did not intend to include "evaluator station" as an element of the claim, it may have been a mistake to include the term in claim 1 at all. However, the words of the claim are what they are, and the patentee bears responsibility for the words used, mistake or not. The Court therefore concludes that the weight of the evidence indicates that "evaluator station" is an element of claim 1.

V. Conclusion

For the foregoing reasons, the disputed terms are construed as follows:

1. the term "patient" means "individual whose medical condition or properties are being monitored in the course of receiving care or attention at the direction of a physician or other medical professional";
2. the terms "converting" and "operable to convert" to have their plain and ordinary meanings; and
3. an "evaluator station" is an element of claim 1 of the '991 patent.

So Ordered.

/s/ F. Dennis Saylor
F. Dennis Saylor IV
United States District Judge

Dated: February 24, 2016